

Appl. No. 10/602,249
Amdt. Dated Mar. 29, 2004
Reply to Office Action of Dec. 29, 2003

REMARKS

Claim objections

In response to claim objections set forth in this Office Action, applicants have carefully corrected related informalities in claims 1 and 19 (claim 18 has been cancelled) to remove the objections thereto.

Claim Rejections under 35 U.S.C. 102(b)

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Fan (US 6,371,771).

In response to above claim rejection, applicant has cancelled claim 18.

Claim Rejections under 35 U.S.C. 103(a)

Claims 1-13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (US 6,368,156) in view of Wu (US 6,056,602).

Regarding amended claim 1, an electrical connector defined therein comprises an insulative housing defining a receiving space and a first passageway communicating with the receiving space. An electrical contact is received in the first passageway and comprises a body portion, a resilient arm and a tab both extending from the body portion. The resilient arm has a contact portion projecting into the receiving space of the insulative housing and an extension extending from

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the contact portion. The tab has a pressing portion holding the extension of the resilient arm and **deflecting the resilient arm toward the body portion.**

Regarding amended claim 19, an electrical connector assembly defined therein comprises an insulative housing defining a receiving space along a lengthwise axis in a front-to-back direction thereof. A plurality of contact receiving passageways are formed in the housing in communication with said space. A plurality of contacts are disposed in the corresponding passageways, respectively, and extend into the receiving space. At least one of said contacts defines a body portion with a tail portion extending from a rear portion thereof, and a resilient arm extending from a front portion of the body portion along the lengthwise axis with a contact portion located at a distal end of the arm and laterally invading the receiving space. An extension is formed at a distal free end of the contact portion and held by a tab which extends from the body portion along said lengthwise axis. Said tab holds the extension in a lateral direction perpendicular to said lengthwise axis when no plug is inserted into the receiving space, while the extension is disengaged from the tab toward the body portion when said plug is inserted into the receiving space and engages and urges the contact portion.

Referring to FIGS. 1 and 2 of Lin, a jack disclosed therein comprises a housing 1, a pair of resilient contacts 3, a pair of switch contacts 4, a retention pad 5, and a grounding contact 6. Each switch contact 4 **contacts** the contact portion 312 of a corresponding resilient contact 3 when the plug is not inserted into the housing 1. When the plug is inserted into the housing 1, the plug pushes the curved portions 311 of the resilient contacts 3 sideways and the contact portions 312 are deflected to move away from the switch contacts 4, thereby **breaking an electrical**

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connection therebetween (line 20 to line 23 and line 37 to 41 in column 3 of Lin).

Referring to FIGS. 1, 4 and 5 of Wu, a jack disclosed therein comprises an insulative body 1, a first and a second signal terminals 23, 21, and an insulative bottom member 4. The first signal terminal 23 includes a fixing portion 232, a spring portion 233, an arcuate portion 231, a contact portion 236, an engaging portion 237, and a solder portion 234. When the mating contact 5 is inserted into the insulative body 1, a narrow section 51 of the mating contact 5 engages the arcuate portion 231 of the first terminal 23 thereby deflecting the contact portion 236 to contact the engaging portion 237 for **providing a short electrical path therethrough** (line 50 to line 56 in column 3 of Wu).

As described above, the jack disclosed in Lin is designed to provide a breaking signal between the resilient contacts and the switch contacts when the plug is inserted into the jack. So the resilient contacts and the switch contacts **must be separated from each other**, there is **NO** motivation for one having ordinary skill in the art to integrate the resilient contacts and the switch contacts of Lin.

Further, in detailed Action, the Examiner considers that Wu teaches a tab for pressing an extension of a contact that is integral with the body portion (Fig. 4). However, applications could not find such a tab in Wu patent, particularly in Fig. 4 thereof. Actually, the contact portion contacts the engaging portion of the first signal terminal of the jack disclosed in Wu is used to **provide a short electrical path**.

So, combining Lin with Wu can **NOT** obtain the subject matters as defined in

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claims 1 and 19 of the present invention. Therefore, claims 1 and 19 are believed to be patentable over Lin in view of Wu. Claims 2-13 and 20 are also believed to be patentable since they respectively depend from claims 1 and 19, either directly or indirectly. Claim 20 has its own patentability by defining the tab being stamped and split from the body portion thus forming an opening correspondingly, because neither Lin nor Wu can meet this feature.

Claims 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Wu as applied to claims 1, 7 and 10 above, and further in view of Fan.

Claim 14 depending from claim 10 further recites that the electrical connector comprises a metallic shell enclosing the insulative housing and having a top wall, a bottom wall opposite to the top wall, a first side wall, a second side wall opposite to the first side wall, and a plurality of solder portions extending from the top and bottom walls and beyond the rear face of the insulative housing.

Claim 15 depending from claim 14 further recites that the insulative housing defines a top groove in the top face and a bottom groove in the bottom face thereof, and that each of the top and bottom walls of the metallic shell is formed with a tab abutting against a rear end of each of the top and bottom grooves of the insulative housing.

Claim 17 depending from claim 14 further recites that the insulative housing is formed with a projection on the second side face thereof, and that the metallic shell defines a gap on the second side wall thereof and engaging with the projection on

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the second side face of the insulative housing.

As mentioned above, neither Lin nor Wu discloses the tab, which is defined in claim 1 of the present invention, extending from the body portion and having a pressing portion holding the extension of the resilient arm to reduce the occupied space.

Referring to FIGS. 1-3 of Fan, an electrical connector 1 disclosed therein comprises a housing 20, four first terminals 30 and a second terminal 40 assembled in the housing 20, and a shell 50. Each of the first terminals 30 includes a mounting tail 31, a foot portion 311 perpendicularly and upwardly extending from the mounting tail 31, a fixing portion 32 perpendicularly extending from an upper end of the foot portion 311, and a contacting portion 33 extending from the fixing portion 32. The second terminal 40 includes a fixing portion 41, a mounting tail 42 perpendicularly extending from a lower end of the fixing portion 41, and a spring arm 43 extending from an upper end of the fixing portion 41.

Fan also does not disclose the tab defined in claim 1 of the present invention. So, combining Lin with Wu and Fan can NOT obtain the subject matters as defined in claims 14, 15 and 17 which indirectly depend from claim 1. Therefore, claims 14, 15 and 17 are believed to be patentable over Lin in view of Wu and Fan.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Wu and Fan as applied to claim 14 above, and further in view of Yu et al. (US 6,375,498).

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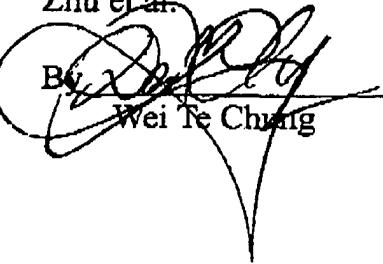
Claim 16 depending from claim 14 further recites that the insulative housing is formed with a pair of projections on the first side face thereof, and that the metallic shell defines a pair of gaps on the first side wall thereof and engaging with the pair of projections on the first side face of the insulative housing.

Referring to FIG. 1 of Yu et al., an electrical connector 100 disclosed therein comprises a housing 1, a plurality of terminals 2 received in the housing 1, a pair of boardlocks 4, and a shield 3 binding the housing 1 and the boardlocks 4 together.

Yu et al. also does not disclose the tab defined in claim 1 of the present invention. So, combining Lin with Wu, Fan and Yu et al. can NOT obtain the subject matter as defined in claim 16 which indirectly depend from claim 1. Therefore, claim 16 is believed to be patentable over Lin in view of Wu, Fan and Yu et al.

In view of the above claim amendments and remarks, the subject application is believed to be in a condition for allowance and an action to such effect is earnestly solicited.

Respectfully submitted,
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